thank you all for having me and it's so awesome to see so many of you at 9:00

a.m. in the morning to discuss metrics so let's hope we keep you engaged till the end of the session so how do we

think about what metrics to track and our advisors find out which business

model you fit in you know the most common thing people do is which industry vertical are you in are you healthcare

are you biotech or I you enterprise but that's not really the best way to think of

metrics the best way to think of metrics is how do you plan to charge your users which is the business model and which of

these business models do you fit in so roughly there are nine business models I mean I've I would say 99% of you should

fit into one of these categories if you don't you're probably building something that's incredibly hard which is what we

call moonshot so let I walk you through for the rest of the presentation on each business model and what three or four

metrics you need to track beyond three to four honestly at this stage is an overkill so these are the things that would matter so what is an enterprise

business model this is a company that sells software or services to a large enterprise pretty simple there if you

startups do that so I would expand to launch something from day one that sells

to say Facebook or Google or Apple or any of them but if you are one of those

companies examples are like dark darker cloud or fire I even in the YC portfolio

there are very few that did that from day one but if you're one of them that sells to large enterprises you would

characterize yourself in this category and the large enterprises tend to work

in terms of contracts so your business model will come in to three things which

are the three metrics you track which is bookings so if you're working with say Facebook they'd say hey you're gonna

help us hire X engineers we'd like to sign a hundred thousand dollar contract for next year so that's why you'd say

what is my booking what's the total number of unique customers I have and what's revenue

the difference between booking and revenue is Facebook might sign a contract ahead of time would tell you at

the start of the year that it's a hundred thousand Forex hires over the year that doesn't mean you recognize

revenue straight away you recognize revenue only when you have delivered the service either you've placed all the

hires that you said in your contract or if it's an annual contract you just divide it monthly so the common mistakes

we see founders do is confusing bookings and revenue you know they would have

signed contracts but they haven't delivered anything this contract hasn't even kicked in but they're already

reporting it as revenue that's not true because you haven't delivered service so therefore it's not revenue and so you

should hold yourself accountable for that like the company is not generating revenue the second common mistake which

is probably more relevant at the stage that you're in is you know Facebook might have verbally told you I will

consider a 100k contract you know for that 100k it's not a big deal for a lot of you it's a really big deal that's

neither booking nor revenue because it's a verbal offer so the other even if you even if they sign a letter of intent it

means nothing so you really have to have the contract written down sign for it to

be bookings and for revenue only when you start delivering it the second

business model is SAS which is probably where most of you fit in especially if you're in b2b or you know servicing to

other companies you're all probably thinking of SAS model it's a very prominent model these days you know you

see a number all these sub YC startup segments iron clad San Burt they all started with SAS model right from day

one SAS is software as a service in terms of business model it's really subscription business you charge

something monthly for a software that you provide so what are the four metric key metrics you would want to track well

if it's subscription by definition that revenue is recurring right which means

if you hopefully have built something that people really like they'll continue to use it and they pay you every month

so that's why you track em are are at the highest level that is monthly

recurring revenue how much are you making monthly and what did the customers come at

ARR is annual recurring revenue because of this face you're really growing fast

you may be growing 30% week of a week or 40% week over week so it's helpful to track your annual recurring revenue as

literally run rate so if this month you made thirty thousand and I'm RR and if it's truly recurring you should expect

that your annual recurring is twelve times that so it's just a good metric to use internally as well because it helps

show the pace rather than just looking at absolute the third thing you should

pay attention to is chart so when you launch there will be few users who are early adopters that use it but you

really should be paying attention to if they stop using it right and if you're a

subscription business the chances are you probably make five thousand to ten thousand dollars a month from two or

three customers or maybe even ten so losing a customer means real impact on your revenue and so this is why we we

recommend measuring something called gross mrl churn which is how they at the

start of the month you expected your monthly recurring revenue to be ten thousand but one customer churn and they

were paying three thousand then that's your gross churn 3000 by ten thousand so

don't blend it because you're obviously acquiring new users and if you measure blended you numbers still look great

right because you're growing a lot but you're not paying attention to users that you're losing and it's really

important to learn from users you're losing which is why we ask you to measure the churn paid kak this comes in

a little later hopefully almost all of you are acquiring users organically

I wouldn't recommend doing any paid acquisition at the stage but if you do start doing some experiments where you

say hey I'm gonna do a little bit of paid marketing or advertising to get a few customers then you should measure

what was the cost to get that user through paid mechanism so which is

literally saying if I spent $10,000 on Facebook or any other channel that you used and you got five customers from

that channel how much did you pay for that common mistakes

two really common mistakes and this happens again and again even spite of like highlighting it which is ARR

literally stands for annual recurring recurring is the most important word revenue if you don't have a recurring

business which is you don't chat subscription your customers are not committing to 12 months of payment you

don't have a recurring round in your business so internally if you start calling it ARR everyone thinks oh it's

rep you know it's repeat business it's not because you have to go back and acquire them each month or you have to

have you know you have to work with your customers to make sure they pay every month so the most common mistake is people instead of saying annual run rate

which actually is not very useful even to gauge your business if you use ARR be

absolutely sure you have a recurring revenue and the second mistake people

make is when their what they would say oh yeah it's recurring revenue but actually the customer would have

committed to only one-time payment or you know you may have done a consulting project and it's not really clear

whether they're gonna pay second month or third month but they would still include it as a matter you know it's not

make sure you're including only what's truly recurring where the customer has said I'm signed up for a 12 month or a

six month annual plan and this is what I'm being is subscription this is

probably more relevant for consumer businesses so if you Dollar Shave Club blue apron applet take there are lots of

companies especially subscription as a service is becoming so popular in consumer right now it's very similar to

SAS but it has a slight nuance so similar to SAS because you have M RR

which is recurring right you may have signed up a Netflix annual subscription it's recurring it's monthly recurring

the two differences is instead of looking at a RR or any of that we

actually say measure your monthly growth and unit churn not dollar chart why is

that because if you're selling to companies usually your subscription is more value right it's like they're

paying two thousand five thousand dollars there if you lose a customer the impact on revenue is a lot so you should really

look at revenue churn if you look at Netflix everybody pays 7 or 10 dollars

per month so it's about volume of customers which is why we say pay attention to growth because you need to

make sure that the number of users using Netflix continues to increase and you measure unit churn not necess to

customer who's paying $10 that's $10 but if you lost thousand customers paying

$10 each that's significant right so which is why we say measure gross unit

churn was as if you're a SAS business selling to companies measure revenue churn and paid kak is very similar like

the last time but just make sure if you're spending paid marketing measure the cost associated with acquiring those

users don't do it on a blended basis so when you are at this stage you will tend

to grow in spikes so this month you may grow 80% next month you would grow 10% next month you may grow another 90%

right that's natural because you're learning you're iterating and you're trying to figure out you know what

really resonates with the user so what's really important is to make sure that since launch since the month you started

acquiring users you measure compounded monthly growth rate so which is let the

current month divided by the first month and you know decrease that growth rate

proportionately for the number of months since launched what founders often do is mistake is they would just do the

average so they do 90 percent this month plus 10% second month plus 80% third man

what happens with averages it makes your growth look good because you had some spikes you want to be true to yourself

because these won't be problems when you are two or three people team you know but hopefully you all will scale and

we'll start hitting 10 people team and then when you set goals someone will be very happy that it's 50% growth rate but

that's because you're measuring growth wrong the next is transactional businesses this is probably more new new

in the sense that's happened in the last eight to ten years and again you see that with stripe PayPal coinbase Brax a

lot of FinTech companies especially fall in this category so what is a transactional

company which is if you're in the safe in tech or payment space you probably process a lot of payments volume right

let's take stripe for example they power the payments for more startups and so

every startups payment volume goes to stripe that's the transactional business

but stripe collects a fee for the transactions so if you're a type of business that processes someone else

payments volume then you should put yourself in the transactional bucket so

the gross transaction volume is the tpv or the total payments volume that flows through the platform so stripe had 30

customers at your stage and all 30 customers were processing say 100 million and tpv but it all went through

stripe that's TBD but that's not revenue revenue is what goes to your bank

account so that's your cut which is why it's called net revenue so the portion of transaction volume that you make so

stripe would say hey I charge two and a half percent for the payment volume that flows through my platform the two and a

half percent is the net revenue that they take if you're in the transactional business it's very common that you'll

have lots of customers right so within a year of launch you could even have thousand two thousand customers then the

important metric to track has user retention because you want to make sure that six months after they're using you

or twelve months after they've started using you hopefully they're still using you why because you are powering their

platform unless you've gone out of unless they've gone out of business there should be no reason they're not

using your platform how are they doing business like imagine if someone stopped using stripe well are they out of business or who is processing their

payments so that's why it's really important to measure your cohort

retention on a monthly basis if you're a transaction business and paid calc is very similar to what you know in all

cases it's the same thing just natural different paid channels but again as I said hopefully none of you are doing

paid marketing so what is the common mistake here confusing gross transaction volume to

net revenue as I said like if you are processing million in transaction volume that's not

net revenue that's not the cash that hits your bank two and a half percent of the hundred million hits your bank that's a much smaller number so you

should really make sure what you called revenue was this transaction volume and I've often seen founders here sometime

come up with like oh but I process the volume that's my revenue no excuses net

revenue is literally the cash you make in the bank and then user retention is a

cohort metric it's not one number it's not like oh I retain 30% of my users that means nothing to us right even for

you it should not because if it's if you're powering payments you should say well 40% of my customers have used it

consistently for the 12 months since they joined us well that's a better metric next is marketplace again this is

more simple it looks like transaction but it's different it's typically used by consumer companies so Airbnb eBay are

all good examples of marketplace what's the marketplace you have two sites so in Airbnb you have hosts and

guests guests go to the platform select a room booked it the host is happy

that's a marketplace so what are the three or four metrics that matter here gmv right so when the guest books the

platinum room you know the host might say it's $100 per night and sure the

$100 per night say they say - two nights it's $200 that $200 is gmv that

everybody can record but that's not net revenue because air B&B doesn't make the full $200 everybody probably makes 12%

of that right so 12% of that $200 is what you would classify as net revenue -

other metrics again similar to the other morals that we talked about you wanna track here is compounded monthly growth

rate if you see this is a more important metric for consumer businesses right because volume of consumers matter and

therefore it's really important to track your monthly growth rate in a compounded

way so you can keep yourself honest how you're growing and similarly when it

comes to consumer businesses you should pay an attention to user retention not necessarily dollar attention because

volume of users matter so here you would say what percentage of customers came

back to Airbnb or Airbnb retained you know 6 months or 12 months from now now

in Airbnb skates how often do people travel does anyone want to take a guess

was that once a year very good so how should they track how when should they

be happy when should they be sad once a year yes so if you imagine when

everybody was going through YC and they could see their cohort repetition once a year how are you gonna know you're doing

a good building a good business there to wait 12 months will you wait 12 months

to check whether your customers are coming back no so this is what you have

to get creative and the way to get creative is reflect on your user behavior so if you're going to book

something hopefully someone who's troweling is not booking the day before they're traveling they start doing

research six months before and so Airbnb studied that and so what they would track is if you as users came back to at

least search for a city or a booking six months so you in this stage of your

startup what's most important is to really be truthful and honest about how you want the users to behave and come up

with those retention metrics to measure if your business is really healthy and

are you seeing what you want to see from your users so what's the common mistake

here this was especially acute for Airbnb because they didn't pay anything for demand-side right they had a

brilliant value proposition there were really good designers very good storytellers demand they didn't pay

anything but they had to pay to acquire hosts because guess what no one was ready to let their homes to strangers so

they had to work hard which was you know they had to put you know advertising around events so they had to spend a few

dollars on acquiring hosts pretty much very early on so the number one mistake

founders tend to do here is you know you're acquiring a bunch of users organically and some users through paid

and you'll blend everything you'll say I acquired hundred users this month and so my CAC was 12 but what had happened was

if you truly measured who you acquired from paid advertising channel it could

be as high as 70 and so you have to ask yourself is it sustainable is it is are you really seeing the ROI in paid

channels so if you are in an unusual situation like Airbnb where your

business frequency is not very high because people use once a year and you have to pay the choir host it's really

important to pay attention to where your money is going and whether you're getting a good ROI from that ecommerce

ecommerce is you know literally you have certain goods to sell you're selling them online people are ordering it

Molly Parker bonobos minibox a lot of them you know that's what we would characterize as e-commerce which is you

make the products or source the products but ultimately it's your brand and someone's coming to the brand to

purchase it so here again it's a consumer business you track monthly revenue you notice there's no recurring

no subscription it's just revenue because people might buy a product this Monday may not buy it next month right

so it's monthly revenue because it's consumer business again very important

to track a component monthly growth rate for e-commerce even from day one it's

important to track your gross margin because you either make the good or you're sourcing it and branding it under

your name so it's important to understand what it takes what is your cost to get the good so that you're

making some profit on a per product basis and it's more important for ecommerce because you it's not a

recurring business right so you have to make sure that you're able to make money on a per transaction braces so which is

why gross margin is important to track paid kak very similar to all the other

examples common mistake gross profit for e-commerce is not accounting for all

costs now Amazon does a great job of this and people often say oh yeah they

have very thin margins but actually it's net margin after all costs and so if

high-volume net margin times high-volume is a pretty good Aveda business which

you can use to find out for future investments so the common mistake we see here is an e-commerce as people would

say oh say I bought you know a clip and we know the cost of the clip is $10 they

wouldn't include shipping cost they wouldn't include customer processing costs they wouldn't include

payment processing costs all that is important because if you don't include those cost you're probably pricing it

wrong and so it's so important that you're pricing it wrong pretty much from first transaction advertising we see far

fewer companies in the advertising space these days but if you happen to be in that space then you know the common

companies that are analogues for you are snapchat Twitter reddit they all have you know huge social

network that come to their site for different reasons but the primary monetization model is advertisers

advertise there and companies make money from advertisers so at this stage

because you probably will never be monetizing if you're in that vert icing business it's all about the users and so

when it comes to users there are really only three things that matter daily active monthly active percent logged in

so who are the users who use your app daily monthly active who use it monthly

and then percent logged in as actively logged in using a username and password

the common mistake and I'll give many examples of this not defining what active means so there was the company I

think three or four years ago that reported a daily active user metric and I remember asking them what is active

and you know I had some sense of like maybe for somebody who have read engaged whatever and this founder answered well

those are the emails I sent that's not active you know active again it goes

back to the Airbnb example you should define what you want your users to behave like when using your app so if

you're building a news app does it mean reading conscious active does it mean

commenting councils active you should define that really well and so if you don't define that you could be

building something that has no stickiness and probably you know you're gonna have users that are winding down

pretty quickly and it's not worth it right so make sure you really define what activists and hold yourselves to

that metric the other one is hardware it's again very similar to ecommerce because at the

end of the day they're selling a device so if your Fitbit group Pro Xiaomi you know we'd say you're in the heart that

bucket as you can see it's very similarly comments where you look at monthly revenue component monthly growth

rate you look at gross margin and really carefully hopefully you're making profit from day one and then paid kak okay so

those are the nine business models and one last thing I'd leave you with before I open it up to questions as common

mistakes so common mistakes is you've heard this and you've probably read this in so many blogs charges that look up

into the right are brilliant well but cumulative charts are always up into the right do not have any comment there is

no rationale in the world to have a cumulative charge so I I don't know a single company at scale that shows a

cumulative charge so do not take a cumulative chart second thing I've seen

is not labeling y-axis like as I said you're going to scale even if you hit five or seven users you know if you're

if you don't know what the y-axis label is and if the charts look like straight vertical bars it means nothing

third is changing Y axis scale this is something I never understood but quite a few of them do it which is you know x

axis starts at zero and y axis starts at say 50 those things don't really show how well you're growing show your

problems by the way no YC startup had a charge straight up into the right no one did even the most successful companies

didn't either so I think the most important thing is to really be honest measure and fix things right it's okay

to go down sometimes and also usually we say don't show only percentage charts

it's very important that whatever you're measuring whether it's gross revenue churn monthly growth be clear about the

absolute number and the percentage is relative to the absolute number

we also have you know done detailed post on metrics while I was at a 16 Z so having two links there if anyone wants

to look at it but at your stage only three or four metrics matter if anything

you took from here hopefully you fit into one of these nine business models you can start with two or three of these

metrics for each business model and that itself would be a great head start for all of you thank you yeah so the

question is can we map bookings to accrual accounting right yeah I think

that's not I mean the purpose of tracking bookings versus revenue is not from an accounting standpoint it's from

how do you gauge your business meaning bookings as future revenue right so all

that all you're saying is I have signed a contract four hundred thousand dollars I am NOT ready to launch for them until

two months from now but you know that it's future bookings because it's all signed and the customer has committed to

working with you so you say it's hundred K and then but you're not starting to deliver service until two months from

now which means you can't recognize revenue so it's only a measure to manage your business internally so you know

that this is coming in the pipeline this is where my team's resources is going to go but if I want to hit the goal of 200

K by the end of the year how should I you know maybe you need to go find one more customer or accelerate launching

your service which is most likely the case in your you know in the face that you are in which is why am i reading two months to launch this what can I do to

launch it tomorrow

we can pick from a couple of different things these nine verticals in business

model is there something that you're recommending for a community business to

attract early on before you decide business level I think that the question

was really what should we track for community business I put community business whether your business model is advertising or not in

that category so really what you should be tracking is Jeff define who your active user is and what you want that

user to do so daily active users and monthly active and track weekly how

they're doing

[Music]

yeah um you know most businesses evolved to different business models over time right what's most important is what is

your short-term focus so if your short-term is like for the next year or two which is about finding product

market fit in your transactional business then that's the that's the area you want to start with

[Music]

[Music] yes absolutely so the question was what

should we talk to for investors at this stage honestly the bet is only on two or three things which is you as the founder

what unique insight do you have that you're building this and can this be a big company that's it and so don't over

complicate this yeah so great question

about excite again as I said it's very easy to get caught up in what do investors want to see but the most

important thing is you know more about the business than anyone and so it's about what should you track to make sure

your business is healthy so the two things as founders you should track very early on is burn right because you're

spending cash so you should always know don't run out of money so makes there's no excuse for running out of money so

make sure you do your P&L thoroughly so that you're tracking your burn and you know that there's enough money in the

bank to at least operate the company for another six to nine months to is if we're related to expenses it's the gross

margin especially if you're in business categories that are ecommerce or consumer related then they do pay

attention it's important for founders to pay attention to gross margin which is on a poor transaction basis am i making

money or not because if net you're not making money then it's a you know do you

have line of sight when you would make money because if you don't then you should really question you know is there

a business to be built but I'd suspect it's quite early right not which is why I say focus on getting the users and how

do you monetize that's the first step and for business this has a model of

kind of like say ancestry.com where people sign up they get a report and

they may want to come back later if there's no purchase yeah I think you

should do both but I would record revenue it's just their Avenue for that month because it was purchased only for

that month and then you just figure out like how Airbnb did which is what's the behavior you expect do they do you

expect them to come back once a year if so are they and what percentage of them are coming back yeah I'll go to this

site

[Music]

yeah so great question and this is why I brought up the Airbnb host example right

the only thing that I would say that's probably most important is to measure the paid acquisition cost of bringing

that supplier in because you know in most marketplaces it's actually really

hard to get the demand side which is the users right and if you get enough

business for the supply the supply will stay and especially at this point again

if you were three years out and you have scaled and you are at like 20 30 million GMB the answer to your question is

different at this point it's about how do I get both sides organically as far as possible if you have to spend on the

supply side for a little bit okay but try experiments every now and then but when you're trying experiment the most

important thing to measure is what's your paid acquisition cost because hopefully it's not so much that you're

born goes out of whack so that those are the two that really

like some noodles so what's the recommendation like break down the small

teams of individuals in theater price in given and enterprise businesses you

can't really sell to Facebook from day one how should we focus about the go-to-market should we just go to small

teams you almost always start with small teams or a pilot right so when companies do you know focus on enterprise you

usually start with a pilot but the pilot could be something like it's a six-month pilot or it could be a three-month pilot

in those cases you don't report them as bookings or revenue you just say it's a pilot at the end of the pilot we visit

whether we can get a contract and the face that you're in usually it you'll

have only one or two customers over the course of 12 to 24 months that's okay

because the ACV if it works are the contract annual contract would be really huge and that's expected it's the good

acquisition customer cost is zero so let me just say that that's the best customer acquisition costs especially at

this stage because if you have built something that people really want you will get it without spending much right

so at this stage it's only zero as you scale there's obviously room it's not

necessarily it's the correct answer is not an absolute dollar number the way

you look at it is you compare your acquisition costs to the lifetime value of the customer so if you had the

customer for one year in every in this case for example if everybody says yeah you know this customer booked twice with

me and if they do that every year I make hundred dollars from them then you say I

can you know you should have a 5x gap so you at you're willing to spend $20 to acquire but at this stage the answer is

zero

you